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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/920,482	08/01/2001	Henry Houh	EMPIR-018DUS	5573
22468	7590	06/07/2006	EXAMINER	
CHAPIN & HUANG L.L.C. WESTBOROUGH OFFICE PARK 1700 WEST PARK DRIVE WESTBOROUGH, MA 01581			MURPHY, RHONDA L	
			ART UNIT	PAPER NUMBER
			2616	

DATE MAILED: 06/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/920,482

Applicant(s)

HOUH, HENRY

Examiner

Rhonda Murphy

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. This communication is responsive to the amendment filed on 3/17/06. Accordingly, claims 23-26 have been newly added and claims 1-26 are currently pending in this application.

Claim Objections

1. Claims 1, 11, 13 and 22-26 are objected to because of the following informalities: Use of the term "capable of" makes the limitation following the term optional. The limitation that follows the term is not a positive limitation and does not require the steps to be performed. Appropriate correction is required.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1 and 2 are rejected under 35 U.S.C. 102(e) as being anticipated by Ito et al. (US 6,414,942).

Regarding claim 1, Ito teaches a network processor (the enclosed unit in Fig. 1) capable of performing switching and routing functions (col. 2; lines 66-67; col. 3, lines 1-6; 44-53), said network processor having a plurality of processors wherein selected ones of said processors are programmed to provide test system functionality (plurality of processors include modules 2 and 7; col. 1, lines 25-31; col. 2, lines 66-67; col. 3, lines 1-6); storage associated with the network processor (data file 4); an interface coupling the network processor to a communications network (communication line connecting network 1); instructions and data within said storage (col. 3, lines 50-52), the instructions and data directing the network processor to function as a packet capture and analysis tool used to analyze packets on the communications network (col. 3, lines 44-55; col. 4, lines 4-6).

Regarding claim 2, Ito teaches the network processor analyzing RTP packets (col. 6, lines 62-65).

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 3-6 and 9-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ito et al. (US 6,414,942) in view of Pruthi et al. (US 2002/0105911).

Regarding claim 3, Ito teaches analyzing packet streams. Ito fails to explicitly disclose analyzing packet streams for other protocols.

However, Pruthi teaches data and instructions directing the network processor to analyze packet streams at any protocol layer (page 5, paragraph 54). In addition, Pruthi specifies protocols including TCP, UDP and TCP/IP (page 2, paragraph 32). SCTP, MGCP, H.323 and H.248 are all protocols that can be utilized within an IP network. Given this, and Pruthi's teaching of analyzing packet streams at any protocol layer, it would have been obvious to one having ordinary skill in the art to include SCTP, MGCP, H.323 and H.248 protocols in order to allow a variety of protocols to analyze the packet streams.

Regarding claim 4, Ito teaches analyzing packet streams. Ito fails to explicitly disclose analyzing signaling protocol packet streams.

However, Pruthi teaches the data and instructions directing the network processor to analyze packet streams at any protocol layer on the communications network. It is known in the art that signaling protocols provide messages to endpoints within an IP network. Such protocol would be H.323, which defines a set of call control and channel setup specifications.

Given this, and Pruthi's capability to analyze packets streams at any protocol layer, it would have been obvious to have a signaling protocol packet stream analyzed by the processor in order to initiate call setup and call tear down functions.

Regarding claim 5, Ito teaches analyzing packet streams. Ito fails to explicitly disclose analyzing packets for characteristics selected from the group consisting of total packets.

However, Pruthi teaches packets analyzed for characteristics selected from the group consisting of total packets (page 2, paragraph 33; exemplary statistics include byte counts).

In view of this, it would have been obvious to analyze a group consisting of total packets, for the purpose of evaluating all packets.

Regarding claim 6, Ito teaches analyzing packet streams. Ito fails to explicitly disclose providing performance statistics.

However, Pruthi teaches the analysis of packets to provide performance statistics of streams of packets on said communications network (statistics corresponding to network performance; page 5, paragraph 53).

In view of this, it would have been obvious to provide performance statistics of streams of packets, so as to obtain information related to how packets perform on said communication network.

Regarding claim 9, Ito teaches analyzing packet streams. Ito fails to explicitly disclose analyzing packets as groups of streams.

However, Pruthi teaches analyzing packets as groups of streams to provide group statistics (page 4, paragraph 49; packets are segregated into groups corresponding to packets received by the network monitor during successive time periods), said group statistics selected from the group consisting of length of time (page 4, paragraph 49; statistic generator then generates statistics for each of the successive time periods).

In view of this, it would have been obvious to analyze groups of streams, for the purpose of analyzing more than one stream at a time.

Regarding claim 10, Ito teaches packet analysis. Ito fails to explicitly disclose analyzing packets to provide interface characteristics.

However, Pruthi teaches analyzing packets to provide interface characteristics selected from the group consisting of percent usage of interface bandwidth (page 11, paragraph 136; UDP bandwidth usage .32%).

In view of this, it would have been obvious to include analysis of interface characteristics, for the purpose of evaluating characteristics of packets at the processor's interface.

Regarding claim 11, Ito teaches a network processor (the enclosed unit in Fig. 1) capable of performing switching and routing functions (col. 2; lines 66-67; col. 3, lines 1-6; 44-53), said network processor having a plurality of processors wherein selected ones of said processors are programmed to provide test system functionality (plurality of processors include modules 2 and 7; col. 1, lines 25-31; col. 2, lines 66-67; col. 3, lines 1-6); storage associated with the network processor (data file 4); an interface coupling the network processor to a communications network (communication line connecting network 1); instructions and data within said storage (it is known in the art that a storage medium contains instructions and data), the instructions and data directing the network processor to function as a packet capture and analysis tool (col. 3, lines 44-55; col. 4, lines 4-6).

Ito fails to explicitly teach the processor functioning as a packet capture and analysis tool used to provide profiles of network parameters.

However, Pruthi teaches the instructions and data directing the network processor to function as a packet capture and analysis tool used to provide profiles of network parameters (page 11, paragraph 140; subroutines in the network monitor analyze traffic - parameters of quality of service such as packet loss rates, network delays, frame rates, etc.).

In view of this, it would have been obvious to one skilled in the art to modify Ito's system by providing network parameter profiles, for the purpose of determining network conditions.

Regarding claim 12, Ito teaches packet analysis. Ito fails to explicitly disclose profiles of network parameters.

However, Pruthi teaches profiles of network parameters consisting of loss and delay (page 11, paragraph 140; parameters of quality of service such as packet loss rates and network delays). It is known in the art that jitter, packet reordering and packet duplication are other network parameters observed in determining the quality of service of a network. Therefore, it would have been obvious to one having ordinary skill in the art to include jitter, packet reordering and packet duplication as parameters in order to observe latency, sequencing and replication factors.

Regarding claim 13, Ito teaches a network processor (the enclosed unit in Fig. 1) capable of performing switching and routing functions (col. 2; lines 66-67; col. 3, lines 1-6; 44-53), said network processor having a plurality of processors wherein selected

ones of said processors are programmed to provide test system functionality (plurality of processors include modules 2 and 7; col. 1, lines 25-31; col. 2, lines 66-67; col. 3, lines 1-6); storage associated with the network processor (data file 4); an interface coupling the network processor to a communications network (communication line connecting network 1); instructions and data within said storage (it is known in the art that a storage medium contains instructions and data), the instructions and data directing the network processor to function as a packet capture and analysis tool (col. 3, lines 44-55; col. 4, lines 4-6).

Ito fails to explicitly disclose capturing packets on said communication network.. However, Pruthi discloses a network processor functioning as a packet capture and analysis tool used to capture packets on the communications network (As described in the specification, the capture functionality is concerned with only capturing the packets of interest. Pruthi states: If a user only wishes to analyze traffic of IP packets, the packets are filtered to pass only the IP packets; page 3, paragraphs 39 and 40).

In view of this, it would have been obvious to one skilled in the art to modify Ito's system by capturing packets on the communication network, for the purpose of obtaining certain packets.

Regarding claim 14, Ito teaches packet analysis. Ito fails to explicitly disclose filtering packets such that only packets meeting criteria are captured.

However, Pruthi teaches filtering packets such that only packets meeting criteria are captured. As described above in the rejection of claim 13, the criterion is that of filtering only IP packets, as desired by the user.

Regarding claim 15, Pruthi further teaches criteria selected from the group consisting of a source IP address and destination IP address (page 4, paragraph 48).

Regarding claim 16, the combined system of Ito and Pruthi further teach a packet capture and analysis tool used to capture packets as described in the rejection of claim 13. IP packets are a type of packet captured by the user. In order to capture packets, there must be a trigger to indicate the beginning and end of the packet capture.

Therefore, it would have been obvious to one having ordinary skill in the art to have a trigger used to start and/or stop the packet capture in order to indicate the start and end of the capture.

Regarding claim 17, the combined system of Ito and Pruthi teach a packet capture and analysis tool used to capture packets. As described in claim 15 above, a trigger is used to start and/or stop a packet capture. It is known in the art that the start of a packet stream is an event that triggers the start of a packet capture. Therefore, it would have been obvious to one skilled in the art to use the start of a packet stream to start the packet capture, in order to capture packets from the beginning of the stream.

Regarding claim 18, the combined system of Ito and Pruthi teach a packet capture and analysis tool used to capture packets as described in the rejection of claim 13. Pruthi further teaches using data stripping to remove unwanted data from a captured packet (page 3, paragraph 40; In addition to the filtering step only passing IP packets, the filter may also be used to pass only a portion of the packets, such as only the IP portion, by truncating the Ethernet overhead portion).

Regarding claim 19, the combined system of Ito and Pruthi teach a packet capture and analysis tool used to capture packets as described in the rejection of claim 18. Pruthi further teaches using data stripping that excludes data selected from the group consisting of packet header, packet payload and partial payload (page 3, paragraph 40; truncating the Ethernet overhead portion; filtering may be performed based on any one or more of the plurality of fields corresponding to a portion of the IP packet).

Regarding claim 20, Pruthi further teaches captured packets that are post process analyzed (page 3, paragraph 41; further statistic is generated using both the stored records and the stored statistics).

Regarding claim 21, Pruthi further teaches post process analyzing as described in the rejection of claim 13, wherein packet viewing is a form of packet filtering.

Regarding claim 22, Ito teaches a network processor (the enclosed unit in Fig. 1) capable of performing switching and routing functions (col. 2; lines 66-67; col. 3, lines 1-6; 44-53), said network processor having a plurality of processors wherein selected ones of said processors are programmed to provide test system functionality (plurality of processors include modules 2 and 7; col. 1, lines 25-31; col. 2, lines 66-67; col. 3, lines 1-6); storage associated with the network processor (data file 4); an interface coupling the network processor to a communications network (communication line connecting network 1); instructions and data within said storage (it is known in the art that a storage medium contains instructions and data), the instructions and data directing the network processor to function as a packet capture and analysis tool used to analyze packets on the communications network (col. 3, lines 44-55; col. 4, lines 4-6).

Ito fails to explicitly disclose analyzing packets as groups of streams.

However, Pruthi teaches analyzing packets as groups of streams to provide group statistics (page 4, paragraph 49; packets are segregated into groups corresponding to packets received by the network monitor during successive time periods), said group statistics selected from the group consisting of length of time (page 4, paragraph 49; statistic generator then generates statistics for each of the successive time periods).

In view of this, it would have been obvious to one skilled in the art to modify Ito's system by analyzing groups of streams, for the purpose of analyzing more than one stream at a time.

3. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ito et al. in view of Pruthi et al. and AudioPro VOIP Network Monitoring & Analysis.

Regarding claim 7, the combined system of Ito and Pruthi teach the analysis of packets to provide performance statistics, but fails to teach call release time.

However, AudioPro VOIP Network Monitoring & Analysis teaches performance and connection information such as call release time. In view of this, it would have been obvious to one having ordinary skill in the art to include call release time as a statistic for the purpose of analyzing the time in which a call was released.

Regarding claim 8, the combined system of Ito and Pruthi teach a packet capture and analysis tool used to analyze packets, but fails to explicitly disclose the analysis of audio statistics for packet jitter and loss.

However, AudioPro VOIP Network Monitoring & Analysis teaches the analysis of audio streams for jitter and loss (page 3, column 2). In view of this, it would have been obvious to one skilled in the art to incorporate the analysis of packet jitter and loss for audio streams, in order to observe the quality of audio streams, by considering the amount of packet loss and jitter.

4. Claims 23 – 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ito et al. (US 6,414,942).

Regarding claims 23-26, Ito teaches a network processor. Ito fails to explicitly disclose a lookup table and queue management.

However, Examiner takes official notice that network processors are capable of providing lookup table processing and queue management within a network switch or router.

In view of this, it would have been obvious to one skilled in the art to include a network processor capable of providing lookup table processing and queue management within a network switch or router, in order to retrieve entries from a table and manage data in a queue.

Response to Arguments

5. Applicant's arguments filed on 3/17/06 have been fully considered but they are not persuasive. Applicant argues Ito fails to disclose a network processor and a network processor capable of performing packet switching and routing functions to perform test system functions. Examiner respectfully disagrees and would like to direct the

applicant's attention to Figure 1 and column 2, lines 66-67 and column 3, lines 1-6, 44-53 as cited above in the rejection of claims 1, 11, 13 and 22. The enclosed unit in Figure 1 represents the network processor, which performs the claimed functions.

Furthermore, Examiner would like to note the use of the term "capable of" in claims 1, 11, 13 and 22-26 makes the limitation following the term optional and does not required the steps following the limitation to be performed.

Conclusion

6. **THIS ACTION IS MADE FINAL.** This final action is necessitated by applicant's amendment filed on 4/25/05. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rhonda Murphy whose telephone number is (571) 272-3185. The examiner can normally be reached on Monday - Friday 8:00 - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on (571) 272-3126. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Rhonda Murphy
Examiner
Art Unit 2616

RM



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